## RapidDSL & Wireless, Inc

December 14, 2010

Via ECFS
Julius Genachowski, Chairman
Federal Communications Commission
445 12<sup>th</sup> Street, S.W.
Washington, D.C. 20554

Re: Written Ex Parte Presentation ET Docket Nos. 09-191 and WC Docket No. 07-52

## Dear Commissioner Genachowski:

My company, RapidDSL & Wireless, Inc, provides Fixed Wireless broadband service in Washington DC, Maryland, and Northern Virginia areas. We rely primarily on unlicensed spectrum to deliver last-mile broadband services to consumers that have limited broadband choices. We built and self-funded our network from scratch using devices authorized under Part 15 rules the FCC adopted to open up 900 MHz, 2.4 GHz, and 5 GHz spectrum for unlicensed use. Thanks to the Commission's initiatives, area's consumers and businesses can now get broadband services to meet their special needs.

RapidDSL & Wireless, Inc is concerned that certain Network Neutrality rules, if adopted, would severely and adversely affect our ability to continue to provide our customers with affordable Fixed Wireless broadband services. It is our understanding that although mobile broadband will have a special set of rules, Fixed Wireless broadband will be lumped in with traditional wired services and be subject to a stricter set of rules. We feel that the Network Neutrality rules imposed on Fixed Wireless broadband should be no more rigid than the rules that will apply to mobile wireless broadband providers. The physics of wireless technology and delivery necessitate a relaxed set of rules for all wireless technologies. However, we feel more strongly that Fixed Wireless Broadband specifically should be 100% exempt from any Net Neutrality rules, other than rules related to "truth in advertising" or "disclosure" of network management practices.

Many of the proposed rules will destroy our industry, our business and our customers' Internet experience. We believe Fixed wireless networks, will be unable to operate effectively, if the definition of what constitutes "reasonable" network management practices does not account for the unique obstacles faced by small business providers whom are limited by technology's bandwidth capacity, financial capitol, and minimal spectrum availability. Due to the very limited amount of available spectrum, which is nowhere near enough to serve everyone's needs, each and every kilobit of capacity must be cherished, conserved, and allocated for the applications most needy of the technology's uniqueness. We need to face the reality that content delivery and demand is outpacing the technology and spectrum available to meet the demands. We must face the reality that it is NOT the Fixed Wireless providers' responsibility to foot the bill and cover the cost of Content providers' new bandwidth intensive business models. We also must face the reality that the Open Internet and Fixed Wireless technology may not be the most efficient and cost effective method to deliver all types of content to consumers, and that there are other viable options available to consumers and content providers, other than to get a free ride on Access providers' networks, or at the penalty of saturating limited capacity special need networks. Fixed wireless does not have infinite capacity like Fiber Optic, and should not be treated the same.

Fixed Wireless networks are not one-directional "broadcast" networks such as traditional over-the-air TV or Satellite video networks, and should not be treated the same in regards to the content type it must carry. We must face the reality that neither Content providers nor Consumers have the legal right to force small independent Fixed Wireless providers to invest money they don't have, to invent technology that beats the laws of physics, to adapt their business models against their will, and to expand their networks to carry a higher volume and different type of content than the network was originally designed to carry. At least not for free.

Currently, in both Urban and Rural America broadband adoption is much lower than it should be. Some areas show only as high as 60%. In developing the National Broadband Plan and ARRA grant programs, extensive study had occurred to explore the reasons why. One clear reason for low adoption is the cost to obtain broadband. Surely, simple math shows that if Content providers are given a free ride, and Access providers are expected to expand their network capacities to be capable of handling delivery of all content without limits, with individuals' consumption growing exponentially without consideration of cost of delivery, that the only viable resolution would be to charge Consumers a higher fee. Net Neutrality policy that would indirectly force Access providers to raise consumers' rates would be bad policy and contradictory to the goals of the National Broadband Plan to increase Broadband Adoption.

More importantly, under no circumstances should Fixed Wireless Broadband be reclassified under Title 1 or Title II. Title 1 and II were originally written to address characteristics inherent with specific technology and industries of that time, which ideology does not consider the uniqueness and dissimilarity of today's Fixed Wireless industry. There is simply no market need to further regulate Fixed Wireless Broadband. In contrary to the wired broadband industry trends, where a single access provider may own the only wire and control the market, the cost-of-entry and barriers-to-entry into the Fixed Wireless Access provider industry are relatively low comparatively. As a result, often there are numerous successful Fixed Wireless providers able to serve a single area, creating a competitive environment and consumer choice to encourage fair play.

Although Fixed Wireless Broadband utilizes technology more like Mobile Broadband than Wire-line broadband, it should be noted that Fixed Wireless business practices are typically vastly different than that of the Mobile Wireless industry, and because of these differences, Fixed and Mobile wireless should not be bundled together when defining policy. To be straight forward, the mobile industry may need further regulation, even though the Fixed Wireless industry does not, and suggesting such is not hypocritical. The reason is that Fixed Wireless is survivable as a local region play, and even in small scale. Where as trends suggest that to succeed as a Mobile provider, it is more of a National play. There are very few players that have the resources to deliver at National scale. Therefore in the mobility industry, there are fewer competitors, and less market pressures to insure fair play, continued innovation, and an Open Internet. The Mobile industry has much different dynamics than Fixed because of how the Mobile industry sells, markets, and differentiates its services. For example, to the consumer, the Mobile industry is often more about the Handset or the killer app than the network. For proof, just look back over the last year following the IPhone, Blackberry, and Android. Some of the proposed Net Neutrality rules obviously were introduced to specifically deal with these characteristics of Mobile Networks. Now if we compare to the Fixed Wireless Industry, primarily an "Access" business model, when was the last time you heard a consumer complain about the limited Router/CPE choices they had? That problem simply does not exist, and most consumers don't even know what type or brand of router or CPE they own and use.

Imposing Net Neutrality on Fixed Wireless providers will not only encourage price increases, but there is also the risk specific to Fixed Wireless, that it would encourage providers to only offer slower reduced speeds. It's an issue of speed versus capacity. A common trend is that Fixed Wireless providers will offer increased speed plans, with the understanding that the capacity needs of a user would typically stay consistent. The benefit to the consumer is that they perform at high speeds when they need it, for the short tasks typical of Internet use. The mentality is that, the quicker a user is allowed to transfer its fixed sized data, the sooner the network frees up for the next subscriber. There also becomes the realization that one can never go back in time to reclaim the resources that were left unused. So why limit bandwidth which could result in wasting capacity? We learned that as soon as traffic is put on the network, it was most efficient to utilize all available network speed and capacity resources to transfer the data, to free up the network sooner. The end result is less network congestion, and ability to transfer a larger amount of data in aggregate over an extended period of time. This Network management practice assumes the legal right to block harmful traffic that could grow to monopolize full capacity of a link over long sustained periods of time. If Access providers do not have the legal right to control what type and/or volume of traffic can sustain across its network, the risk would be to high to offer high speeds. Instead providers would be forced to only offer slower speed plans, which would also limit the capacity, and minimize the harm that a user could do to the network with heavy sustained traffic. The penalty to the end user is that they'd no longer have the faster speed for important tasks when they really needed it, and in order to have acceptable performance for those tasks, the user would probably have to stop doing any other heavy sustained transfers that would be monopolizing their limited speed broadband plan. After all is said and done, Net Neutrality rules intended to improve End user speeds, would have the inverse effect and actually result in slower speeds offered.

For the reasons discussed herein, its imperative that Fixed Wireless providers be exempt from any Net Neutrality restrictions imposed on them. However, Fixed Wireless providers should not be exempt from benefiting from provisions meant to protect small providers and fair competition amongst providers. Currently, Fixed Wireless providers only hold a minority share of market penetration compared to wire-line providers and content providers. As a result, Fixed Wireless providers are much more vulnerable to unfair practices that could be demonstrated by larger more dominant wire-line providers. Specifically, I'd like to point out the need for Content Neutrality, to preserve an Open Internet. Trends suggest that its feasible that majority market share access providers may merge with content providers to deliver bundled offerings that would create unfair advantage over smaller local access providers. Its imperative that if Net Neutrality rules provide consumers the right to access content of choice, that such right be granted without prejudice to which access provider the consumer or content provider chooses to use for last mile broadband or delivery of content. To connect all of America with Broadband it will take the cooperation and efforts of all Access providers, and delivering an Open Internet will require protecting an Access providers right to interconnect their end users to Internet content.

Our company supports the positions taken by WISPA, the Wireless Internet Service Providers Association in their Ex Parte presentation filed on December 10, 2010, in which do not contradict the text herein.

Sincerely,

Tom DeReggi, President